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03/14/01

OIPE

RAW SEQUENCE LISTING DATE: 03/08/2001
PATENT APPLICATION: US/09/781,077 TIME: 11:48:37

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Input Set : A:\00-18seq.txt
Output Set: N:\CRF3\03082001\I781077.raw

3 <110> APPLICANT: Holloway, James L.
4 Lok, Si
5 Jaspers, Stephen R.
7 <120> TITLE OF INVENTION: Insulin Homolog Polypeptide Zins4
9 <130> FILE REFERENCE: 00-18

C--> 11 <140> CURRENT APPLICATION NUMBER: US/09/781,077
C--> 11 <141> CURRENT FILING DATE: 2001-02-09
11 <150> PRIOR APPLICATION NUMBER: 60/188,544
12 <151> PRIOR FILING DATE: 2000-03-10
15 <160> NUMBER OF SEQ ID NOS: 12
17 <170> SOFTWARE: FastSEQ for Windows Version 3.0
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 429
21 <212> TYPE: DNA
22 <213> ORGANISM: Homo sapiens
24 <220> FEATURE:
25 <221> NAME/KEY:.. CDS.
26 <222> LOCATION: (1)...(429)
28 <400> SEQUENCE: 1

29 `atg gcc agg tac atg ctg ctg ctc ctg gcg gta tgg gtg ctg
30 Met Ala Arg Tyr Met Leu Leu Leu Leu Ala Val Trp Val Leu
31 1 5 10 15
33 ggg gag ctg tgg ccg gga gct gag gcc cgg gca gcg cct tac ggg
34 Gly Glu Leu Trp Pro Gly Ala Glu Ala Arg Ala Ala Pro Tyr Gly
35 20 25 30
37 agg ctt tgc ggc cga gaa ttc atc cga gca gtc atc ttc acc tgc
38 Arg Leu Cys Gly Arg Glu Phe Ile Arg Ala Val Ile Phe Thr Cys
39 35 40 45
41 ggc tcc cgg tgg aga cga tca gac atc ctg gcc cac gag gct atg
42 Gly Ser Arg Trp Arg Arg Ser Asp Ile Leu Ala His Glu Ala Met
43 50 55 60
45 gat acc ttc ccg gat gca gat gct gat gaa gac agt ctg gca ggc
46 Asp Thr Phe Pro Asp Ala Asp Ala Asp Glu Asp Ser Leu Ala Gly
47 65 70 75
49 ctg gat gag gcc atg ggg tcc agc gag tgg ctg gcc ctg acc aag
50 Leu Asp Glu Ala Met Gly Ser Ser Glu Trp Leu Ala Leu Thr Lys
51 85 90 95
53 ccc cag gcc ttt tac agg ggg cga ccc agc tgg caa gga acc cct
54 Pro Gln Ala Phe Tyr Arg Gly Arg Pro Ser Trp Gln Gly Thr Pro
55 100 105 110
57 gtt ctt cgg ggc agc cga gat gtc ctg gct ggc ctt tcc agc agc
58 Val Leu Arg Gly Ser Arg Asp Val Leu Ala Gly Leu Ser Ser Ser
59 115 120 125
61 tgc aag tgg ggg tgt agc aaa agt gaa atc agt agc ctt tgc tag
62 Cys Lys Trp Gly Cys Ser Lys Ser Glu Ile Ser Ser Leu Cys *
63 130 135 140

66 <210> SEQ ID NO: 2

ENTERED

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67 <211> LENGTH: 142
 68 <212> TYPE: PRT
 69 <213> ORGANISM: Homo sapiens
 71 <400> SEQUENCE: 2
 72 Met Ala Arg Tyr Met Leu Leu Leu Leu Ala Val Trp Val Leu Thr
 73 1 5 10 15
 74 Gly Glu Leu Trp Pro Gly Ala Glu Ala Arg Ala Ala Pro Tyr Gly Val
 75 20 25 30
 76 Arg Leu Cys Gly Arg Glu Phe Ile Arg Ala Val Ile Phe Thr Cys Gly
 77 35 40 45
 78 Gly Ser Arg Trp Arg Arg Ser Asp Ile Leu Ala His Glu Ala Met Gly
 79 50 55 60
 80 Asp Thr Phe Pro Asp Ala Asp Ala Asp Glu Asp Ser Leu Ala Gly Glu
 81 65 70 75 80
 82 Leu Asp Glu Ala Met Gly Ser Ser Glu Trp Leu Ala Leu Thr Lys Ser
 83 85 90 95
 85 Pro Gln Ala Phe Tyr Arg Gly Arg Pro Ser Trp Gln Gly Thr Pro Gly
 86 100 105 110
 87 Val Leu Arg Gly Ser Arg Asp Val Leu Ala Gly Leu Ser Ser Ser Cys
 88 115 120 125
 89 Cys Lys Trp Gly Cys Ser Lys Ser Glu Ile Ser Ser Leu Cys
 90 130 135 140
 92 <210> SEQ ID NO: 3
 93 <211> LENGTH: 14
 94 <212> TYPE: PRT
 95 <213> ORGANISM: Artificial Sequence
 97 <220> FEATURE:
 98 <223> OTHER INFORMATION: Cysteine motif
 100 <221> NAME/KEY: VARIANT
 101 <222> LOCATION: (3)...(13)
 102 <223> OTHER INFORMATION: Each Xaa is independently any amino acid residue
 103 except cysteine.
 105 <400> SEQUENCE: 3
 W--> 106 Leu Cys Glý Xaa Cys
 107 1 5 10
 109 <210> SEQ ID NO: 4
 110 <211> LENGTH: 15
 111 <212> TYPE: PRT
 112 <213> ORGANISM: Artificial Sequence
 114 <220> FEATURE:
 115 <223> OTHER INFORMATION: Motif
 117 <221> NAME/KEY: VARIANT
 118 <222> LOCATION: (3)...(5)
 119 <223> OTHER INFORMATION: Each Xaa is independently any amino acid residue
 120 except cysteine.
 122 <221> NAME/KEY: VARIANT
 123 <222> LOCATION: (4)...(14)/
 124 <223> OTHER INFORMATION: Each Xaa is independently any amino acid residue
 125 except cysteine.

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127 <400> SEQUENCE: 4
W--> 128   Cys Cys Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys
129     1           5           10          15
131 <210> SEQ ID NO: 5
132 <211> LENGTH: 5
133 <212> TYPE: PRT
134 <213> ORGANISM: Artificial Sequence
136 <220> FEATURE:
137 <223> OTHER INFORMATION: Motif
139 <221> NAME/KEY: VARIANT
140 <222> LOCATION: (2)...(4)
141 <223> OTHER INFORMATION: Each Xaa is independently any amino acid residue
142     except cysteine.
144 <400> SEQUENCE: 5
W--> 145   Arg Xaa Xaa Xaa Arg
146     1           5
148 <210> SEQ ID NO: 6
149 <211> LENGTH: 426
150 <212> TYPE: DNA
151 <213> ORGANISM: Artificial Sequence
153 <220> FEATURE:
154 <223> OTHER INFORMATION: Degenerate polynucleotide sequence encoding the
155     polypeptide of SEQ ID NO:2.
157 <221> NAME/KEY: variation
158 <222> LOCATION: (1)...(426)
159 <223> OTHER INFORMATION: Each N is independently A, T, G, or C.
161 <400> SEQUENCE: 6
W--> 162 atggcngmgt ayatgytnty ntytnytn gcngtntggg tnytnacnng ngarytnntgg      60
W--> 163 ccnggngcng argcnmgngc ncncntay gngtnmgnq tntgyggmng ngarttyath    120
W--> 164 mngcngtta thttyacntg yggnggnwsn mgntggmgnm gnwsngayat hytngcncay    180
W--> 165 gargcnatgg gngayacntt ycncngaygcn gaycngaygg argaywsnyt ncncngngar  240
W--> 166 ytngaygarg cnatgggnws nwsngartgg ytngcnytna cnaarwsncc ncargentty 300
W--> 167 taymngngnm gnccnwsntg gcarggnacn ccnggngtnty tnmgnggnws nmngngaygtm 360
W--> 168 ytngcngny tnwsnwsnws ntgytgyaar tggggntgyw snaarwsnga rathwsnwsn 420
W--> 169 ytntgy
171 <210> SEQ ID NO: 7
172 <211> LENGTH: 25
173 <212> TYPE: DNA
174 <213> ORGANISM: Artificial Sequence
176 <220> FEATURE:
177 <223> OTHER INFORMATION: Oligonucleotide ZC9736
179 <400> SEQUENCE: 7
180 ccataccct gaccctgtt gagat                                25
182 <210> SEQ ID NO: 8
183 <211> LENGTH: 25
184 <212> TYPE: DNA
185 <213> ORGANISM: Artificial Sequence
187 <220> FEATURE:
188 <223> OTHER INFORMATION: Oligonucleotide ZC9740

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190 <400> SEQUENCE: 8
191 cagaggttcc ctgataccca cacat 25
193 <210> SEQ ID NO: 9
194 <211> LENGTH: 55
195 <212> TYPE: DNA
196 <213> ORGANISM: Artificial Sequence
198 <220> FEATURE:
199 <223> OTHER INFORMATION: Exon 1 sense oligonucleotide primer
201 <400> SEQUENCE: 9
202 tgaagaaggc tcgaattcgt cgacaccatg gccaggatc tgctgctgt gctc 55
204 <210> SEQ ID NO: 10
205 <211> LENGTH: 45
206 <212> TYPE: DNA
207 <213> ORGANISM: Artificial Sequence
209 <220> FEATURE:
210 <223> OTHER INFORMATION: Exon 1 antisense oligonucleotide primer
212 <400> SEQUENCE: 10
213 tgaagaaggc ctcactccca tagcctcggt ggccaggatc tctga 45
215 <210> SEQ ID NO: 11
216 <211> LENGTH: 41
217 <212> TYPE: DNA
218 <213> ORGANISM: Artificial Sequence
220 <220> FEATURE:
221 <223> OTHER INFORMATION: Exon 2 sense oligonucleotide primer
223 <400> SEQUENCE: 11
224 tgaagaaggc ctcaggat accttccgg atgcagatgc t 41
226 <210> SEQ ID NO: 12
227 <211> LENGTH: 52
228 <212> TYPE: DNA
229 <213> ORGANISM: Artificial Sequence
231 <220> FEATURE:
232 <223> OTHER INFORMATION: Exon 2 antisense oligonucleotide primer
234 <400> SEQUENCE: 12
235 tgaagaaggc ctctctagaa ctcttagaaa ggctactgtat ttcaacttttg ct 52

VERIFICATION SUMMARY

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L:11 M:270 C: Current Application Number differs, Replaced Current Application No
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:106 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:128 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:145 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:162 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:163 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:164 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:165 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:166 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:167 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:168 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:169 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6